

REMARKS

Claims 2, 4 and 5 are pending. By this Amendment, claims 2, 4 and 5 and the Abstract are amended, and claims 1, 3 and 6-9 are canceled without prejudice to or disclaimer of the subject matter recited therein. No new matter is added. Reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration as the amendments only incorporate dependent claim features into an independent claim; (c) satisfy a requirement of form asserted in the previous Office Action; and (d) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

Applicants note with appreciation the indication of allowable subject matter in claims 3-5. By this Amendment, claim 3 is canceled, and the features of claim 3, as well as intervening claims 8 and 9, are incorporated into claim 2. Claims 4 and 5 are amended to correct the dependency.

Claim 2 is further amended to replace "piston head" with --cylinder block--. As shown in Figs. 5(a) - 5(c) and described at paragraph [0039] - [0044], for example, a compression ratio varies in accordance with the vertical motion of the cylinder block 103. This amendment makes the description of claim 2 more consistent with the disclosure in the specification. Therefore, this amendment does not change the scope of the claims and is non-narrowing. As such, the patentability of claim 2 is not affected by this amendment.

The Office Action objects to the Abstract. The Abstract is amended to obviate the objections. As such, withdrawal of the objection is respectfully requested.

The Office Action rejects claims 1, 6 and 7 under 35 U.S.C. §103(a) over JP 7-26981 to Miyai in view of DE 24 04 231.

Claims 1, 6 and 7 are canceled by this Amendment. Therefore, this rejection is moot. Withdrawal of the rejection is respectfully requested.

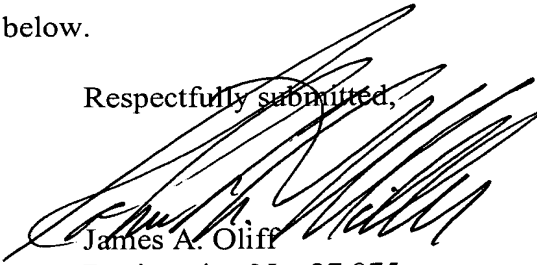
The Office Action rejects claims 2, 8 and 9 under 35 U.S.C. §103(a) over Miyai in view of DE 24 04 231. This rejection is respectfully traversed.

By this Amendment, claims 3, 8 and 9 are canceled, and claim 2 is amended to incorporate the features of canceled claims 8, 9 and 3. As described above, claim 3 is indicated to contain allowable subject matter. Accordingly, claim 2 is allowable. As such, withdrawal of the rejection is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 2, 4 and 5 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Amended Abstract
Petition for Extension of Time

Date: December 20, 2005

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ABSTRACT OF THE DISCLOSURE

A variable compression ratio engine 100 has a compression ratio varying mechanism, which moves a cylinder block 103 relative to a lower ~~case 104.~~case. The rotational driving force of a servo motor 112 is transmitted to vertical sliding movements of the cylinder block 103 by means of cam shafts 109 with eccentric cams. First and second rows ~~A row of first~~ spring members 140 and ~~a row of second spring members~~ 150 are arranged on both sides of the cylinder ~~block 103.~~block. The resultant spring force of the first and second spring members 140 ~~and the second spring members~~ 150 is applied to the cylinder block 103 and the lower ~~case 104.~~case. The resultant spring force works to reduce the transmission torque of the rotational driving force of the servo motor 112 and assist the compression ratio varying mechanism to vary a compression ratio of the ~~engine 100.~~engine. The technique ~~of the invention~~ ~~desirably~~ simplifies the control procedure of varying the compression ratio of the engine and reduces the size of the mechanism required ~~for this purpose.~~